

Case Presentation

Cutaneous metastasis of a transitional cell carcinoma

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Dermatology Online Journal 20 (2): 8

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Acknowledgment: The views expressed in this article are those of the authors and do not reflect the official policy or position of the Department of the Navy, Department of Defense, or the US government.

Abstract

Cutaneous metastases are infrequently encountered in dermatology. We describe a rare case of a urothelial carcinoma metastatic to the skin in an elderly female. The metastasis expanded rapidly and was thought to possibly be infectious on her initial evaluation by her primary team. We were called in as consultants and biopsied this mass to confirm our concern for metastatic disease. In this case there was an unknown primary tumor. Histologic staining patterns were used to suggest that the tumor may have originated from her urinary bladder.

Keywords: Cutaneous Malignancy, Cutaneous Metastases

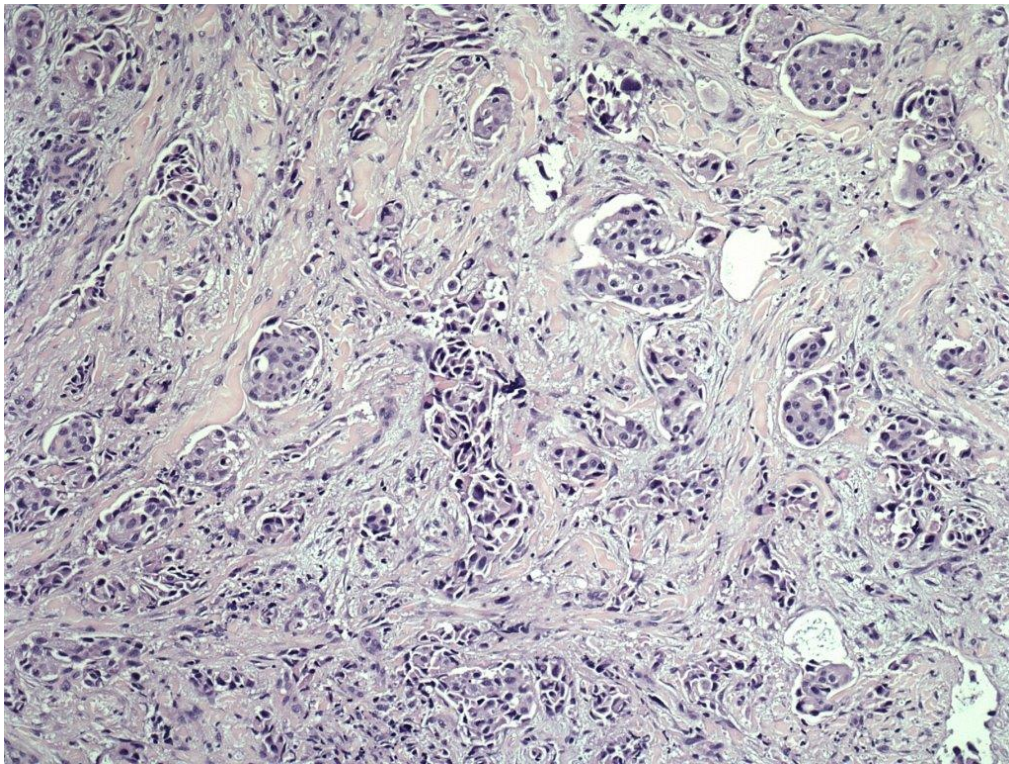
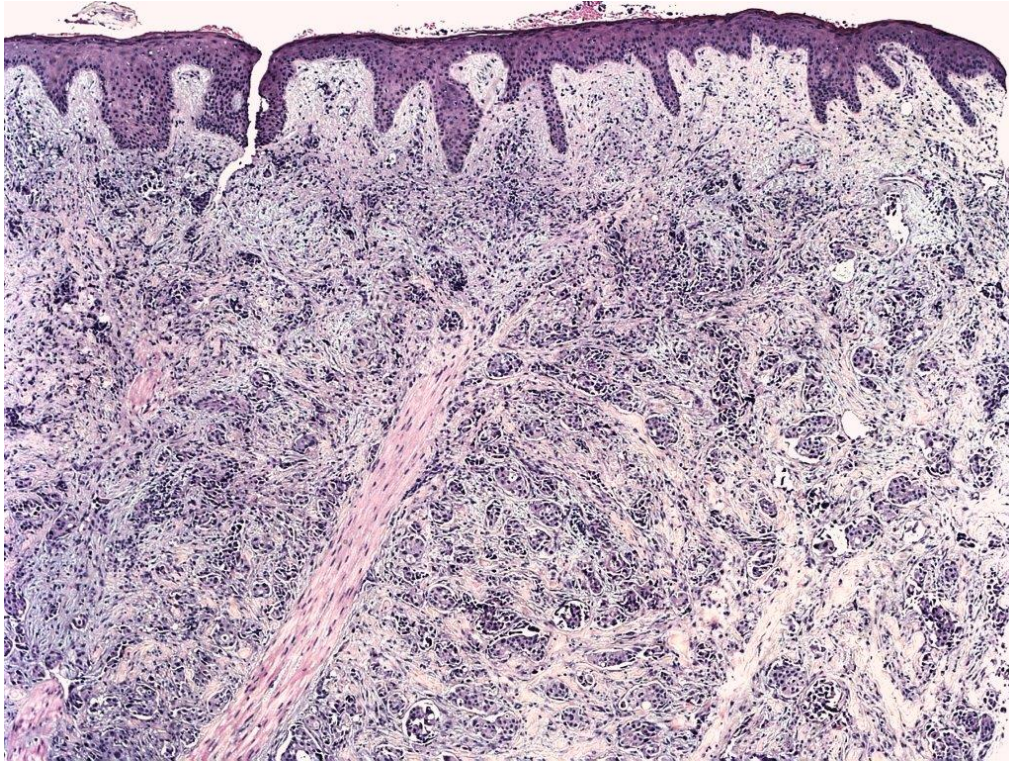
Case Report

An 80-year-old female with total colectomy and ileostomy secondary to ulcerative colitis 30 years prior and a decade-old diagnosis of urothelial cancer presented with a nodular appearing erythematous plaque adjacent to her ostomy site. The lesion arose rapidly over one week and was found to be warm and slightly tender to palpation. There was no drainage or associated pruritus. She denied having any previous similar cutaneous findings. Physical exam revealed an afebrile patient with an 8cm warm, indurated, erythematous plaque extending laterally from the right lower quadrant ileostomy site (Figure 1).



Figure 1. Nodular erythematous plaque adjacent to ostomy site

No other plaques were identified. Complete blood count showed normal leukocyte count. Carcinoembryonic antigen was normal. Punch biopsies were performed for histopathological examination. CK-7 and CK-20 staining were positive.



Figures 2,3. Nests of malignant cells in a desmoplastic stroma

Histopathologic examination revealed cohesive nests of malignant cells in a desmoplastic stroma (Figures 2, 3). Tumor cells stained positively with CK-7, CK-20, p63 and weakly with uroplakin III. Mammoglobin and estrogen receptor stains were negative. Findings were consistent with a transitional cell tumor of urothelial origin. Review of medical records revealed similar histologic findings on an inguinal node core biopsy performed three months prior and a pre-sacral-mass tissue sample performed ten years prior. Several imaging studies at the time of the original pre-sacral mass biopsy could not definitively locate a primary tumor origin. After this original biopsy, our patient had declined chemotherapy and opted for alternative remedies. Gross

hematuria and inguinal lymphadenopathy prompted her to present nearly ten years later for lymph node assessment. Three months subsequently, after diagnosis of cutaneous metastases, she declined palliative radiation therapy and later opted for hospice care.

Discussion

The urothelium is a layer of tissue that lines the urethra, bladder, ureters, prostate, and renal pelvis with carcinoma most commonly affecting the bladder. Cutaneous metastases of primary urothelial cancer have been rarely documented in literature, with some reports at a rate of 0.2 – 2% for TCC of the bladder [1]. Urologic malignancies preferentially metastasize to local lymph nodes, liver, lungs, or bones. Cutaneous metastases have been described as occurring iatrogenically, from lymphatic or hematogenous spread, or by direct tumor invasion. Spread has also been described after invasive procedures from high-grade tumors to nearby abdominal wounds [2].

Clinically, metastatic urothelial lesions present in various forms, making accurate diagnosis challenging. They may be mistaken for lymphatic malformations, lymphoma, cellulitis, herpes zoster, and radiation dermatitis [1-5]. Diagnosis requires clinical suspicion of metastases as well as histological evaluation. Histochemical analysis using cytokeratins 7 and 20 can aid in diagnosis of metastatic disease, especially when a primary is unknown. Wang et al discovered that coordinate expression of these two markers was positive in 89% of transitional cell bladder cancer [6].

The prognosis for patients with cutaneous transitional cell carcinoma is typically poor, with a median survival of fewer than 12 months. This poor survival rate has made management strategies difficult to define, but current accepted treatment includes chemotherapy with gemcitabine/MVAC (methotrexate, vinblastine, doxorubicin, and cisplatin) or palliative care [2].

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